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26. Nov. 2001

HOFFMANN - EITLE, MÜNCHEN
PATENTANWÄLTE RECHTSANWÄLTE

Datum/Date

23.11.01

Zeichen/Ref./Réf.

86 274 a/fi

Anmeldung Nr./Application No./Demande n°/Patent Nr./Patent No./Brevet n°.

01103630.8-2207-

Anmelder/Applicant/Demandeur/Patentinhaber/Proprietor/Titulaire

MITSUBISHI DENKI KABUSHIKI KAISHA

COMMUNICATION

The European Patent Office herewith transmits as an enclosure the European search report for the above-mentioned European patent application.

If applicable, copies of the documents cited in the European search report are attached.

☒ Additional set(s) of copies of the documents cited in the European search report is (are) enclosed as well.

The following specifications given by the applicant have been approved by the Search Division:

☒ abstract

☒ title

☐ The abstract was modified by the Search Division and the definitive text is attached to this communication.

The following figure will be published together with the abstract:

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REFUND OF THE SEARCH FEE

If applicable under Article 10 Rules relating to fees, a separate communication from the Receiving Section on the refund of the search fee will be sent later.





DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	PATENT ABSTRACTS OF JAPAN vol. 007, no. 166 (E-188), 21 July 1983 (1983-07-21) & JP 58 072358 A (HITACHI SEISAKUSHO KK), 30 April 1983 (1983-04-30)	1,2	H02K11/04 H02K3/28
Y	* abstract *	3-10	
Y	US 3 604 963 A (TAWARA YASUO) 14 September 1971 (1971-09-14) * column 3, line 2 - line 56; figure 1 *	3,5,7	
Y	US 5 296 770 A (PFLUEGER GERHARD ET AL) 22 March 1994 (1994-03-22) * column 5, line 10 - column 6, line 6; figures 1,3-9 *	4	
Y	US 4 169 282 A (ALLPORT MAURICE J ET AL) 25 September 1979 (1979-09-25) * column 2, line 23 - column 4, line 15; figures 1-6 *	6,9	
D,Y	EP 0 751 609 A (MITSUBISHI ELECTRIC CORP) 2 January 1997 (1997-01-02) * abstract; figure 7 *	8	TECHNICAL FIELDS SEARCHED (Int.Cl.7) H02K
Y	EP 0 720 273 A (MITSUBISHI ELECTRIC CORP) 3 July 1996 (1996-07-03) * column 10, line 27 - line 36; figures 18,19 *	10	
A	US 5 451 823 A (DEVERALL ROBERT M ET AL) 19 September 1995 (1995-09-19) * the whole document *	1-10	
A	US 5 508 571 A (SHAFFER JR GEORGE G) 16 April 1996 (1996-04-16) * abstract; figure 1 *	1-10	
The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 14 November 2001	Examiner Tangocci, A
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

1
EPO FORM 1503 03.92 (P04C01)



DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
A	PATENT ABSTRACTS OF JAPAN vol. 018, no. 617 (E-1634), 24 November 1994 (1994-11-24) & JP 06 233483 A (HONDA MOTOR CO LTD), 19 August 1994 (1994-08-19) * abstract *	1-10	
A	US 4 952 829 A (ARMBRUSTER FRANZ ET AL) 28 August 1990 (1990-08-28) * the whole document *	1-10	
A	US 4 419 597 A (SHIGA TSUTOMU ET AL) 6 December 1983 (1983-12-06) * the whole document *	1-10	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 14 November 2001	Examiner Tangocci, A
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1
EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 01 10 3630

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The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

14-11-2001

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
JP 58072358	A	30-04-1983	NONE		
US 3604963	A	14-09-1971	NONE		
US 5296770	A	22-03-1994	DE	4018710 A1	19-12-1991
			WO	9120119 A1	26-12-1991
			DE	59104341 D1	02-03-1995
			EP	0533684 A1	31-03-1993
US 4169282	A	25-09-1979	GB	1589717 A	20-05-1981
			AU	503916 B2	27-09-1979
			AU	2988977 A	07-06-1979
			DE	2747229 A1	27-04-1978
			ES	463463 A1	16-11-1978
			FR	2368800 A1	19-05-1978
			IN	148846 A1	27-06-1981
			JP	53053732 A	16-05-1978
			ZA	7706167 A	28-06-1978
EP 0751609	A	02-01-1997	JP	9019119 A	17-01-1997
			CN	1139309 A	01-01-1997
			EP	1137156 A2	26-09-2001
			EP	0751609 A2	02-01-1997
			KR	220311 B1	15-09-1999
			US	5682070 A	28-10-1997
EP 0720273	A	03-07-1996	JP	8182279 A	12-07-1996
			CN	1128427 A	07-08-1996
			DE	69513496 D1	30-12-1999
			DE	69513496 T2	06-07-2000
			EP	0720273 A2	03-07-1996
			HK	1010430 A1	18-08-2000
			KR	235368 B1	15-12-1999
			US	5729063 A	17-03-1998
US 5451823	A	19-09-1995	NONE		
US 5508571	A	16-04-1996	EP	0717488 A2	19-06-1996
JP 06233483	A	19-08-1994	NONE		
US 4952829	A	28-08-1990	DE	3728081 A1	02-03-1989
			DE	3869761 D1	07-05-1992
			WO	8902161 A1	09-03-1989
			EP	0329722 A1	30-08-1989
			JP	2553179 B2	13-11-1996

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 01 10 3630

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

14-11-2001

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 4952829	A		JP 2500630 T	01-03-1990
US 4419597	A	06-12-1983	CA 1154815 A1	04-10-1983